according to Frank, only develop in alcoholic multiple neuritis, or in those cases which are due to infection or other form of intoxication. The question arises whether it is necessary to look for the origin of such disturbances in a pathological and anatomical change in the brain, as has been done by many, or if the outbreak of psychoses in multiple neuritis may be explained without such an assumption.

Tilling holds that such a direct and anatomically provable disease of the brain exists in consequence of the same injurious conditions which affect the peripheral nerves. Tilling's explanation, according to Frank, holds good only of cases of alcoholic polyneuritis, and whether in such cases such an explanation of the connection between psychical disturbance and mental disease may be disputed; at all events, autopsies made up to this time speak against this. Spinal changes, at least such as would correspond to the clinical phenomena, have never been found, not even in cases of alcoholic ataxia, the so-called alcoholic pseudo-tabes. On reviewing the evidence advanced by different writers Frank comes to the conclusion that such cases present no anatomically demonstrable lesion of the brain, but that the psychosis depends on such disturbances of the central organ as are usually called functional, in which with our present means of investigation no anatomical change in the brain is demonstrable. With regard to the question of Beri-Beri the author draws the generally accepted conclusion that such cases are due to infection. After a general review of the literature Frank concludes that his own case of polyneuritis without alcoholism, infection or intoxication is the sole one of the kind in literature. The psychosis was, however, characteristic throughout, and in its individual phenomena not less intense than those cases of psychoses developing in polyneuritis on an infectious or toxic basis. The etiology is sufficiently explained by the poor conditions of life to which the patient was subject for a year before the attack. Frank claims that his case shows that polyneuritis with mental disturbance may develop without one being able to allege as a cause either an infection, or even a special disease — the "cerebropathie psychica toxaemica," and that the pathological findings up to this time afford no special explanation of the psychosis in a primary pathologico-anatomical change in the brain. It results therefore that it is not simply toxaemic influences to whose influence on the peripheral nervous system polyneuritis owes its origin, and that in his case any such source, as well as epilepsy, senility and trauma must be excluded, and the only source to be sought is in the poor manner of living, which together with the small and minute injuries to the peripheral nerves is sufficient to call out the disease.

*On the Psychical Disorders of Multiple Neuritis.* JAMES ROSS. Journal of Mental Science, April, 1890.

Except in a few idiopathic cases multiple neuritis is due to the action of some poison,—diphtheria, septicemia, typhoid and other fevers, syphilis and tubercle; vegetable poisons like morphia; diffusible stimulants,—alcohol, bi-sulphide of carbon, di-nitro benzole, and the fumes of naphtha and other agents used in special manufactures; endogenous poisons, like those generated in rheumatism, gout and diabetes; metallic poisons, lead, phosphorous, arsenic and mercury. Multiple neuritis also accompanies many diseases like cancer, Addison's disease, exothalmic goitre, chorea, chlorosis, hæmoglobinuria, pernicious anæmia, and other diseases attended by great impoverishment of the blood. Some degree of neuritis also probably follows after severe shocks to the nervous system from injuries or moral causes. Whatever the cause of this form of neuritis it is likely to be attended by psychical disorders which have in all cases a certain family likeness; the best marked examples are in the poisoning by morphia, alcohol and other diffusible stimulants.

Ross divides the psychical disorders of multiple neuritis into four

stages: First, a premonitory stage, in which the special senses and the imaginative faculties are likely to be exalted; second, a stage of depression or melancholia; third, a transition to mania or melancholia with excitement, or of convulsions, passing on to, fourth, a final stage of dementia.

In the stage of exaltation the patient often suffers from faint hallucinations. A patient with glycosuria on closing his eyes saw all sorts of figures passing before him, such as soldiers and policemen in threatening attitudes; heard music on several occasions. In a case of alcoholic paralysis in a man of 21 when he closed his eyes a bright cloud shone before him and in the midst of it appeared faces which he spontaneously compared to photographs. In this stage there is unreasoning irritability of temper and suspicious disposition. A case illustrative of the melancholic stage was characterized by gloom, sleeplessness, mental agitation, restlessness, vivid but corrigible hallucinations in full light, and in this stage alcoholic cases find a necessity of taking stimulants for taking stimulants on going to bed. When this stage is reached the mind is apt to be chased by a tumultuous tempest of conflicting thoughts and passions which altogether prevent sleep. Ross thinks acute delirium comes on very readily when such melancholic cases begin to indulge in drink; others develop excitement or mania; while a third group manifests certain incapacities for business and are rendered unfitted for attending to their social duties. Such patients become shy and retiring, and cease to mingle in society. This timidity is seen in females who give way to secret drinking, early cease to attend to social duties, refrain from visiting, and their friends find them indisposed. As the disorder increases they become distrustful and suspicious of nearest friends, often accuse their neighbors of circulating scandals about them, or of overt acts of insult. Patients in this stage suffer from dizziness, a feeling of insecurity in walking, and a peculiar disarrangement in their perception of the space relations of surrounding objects, which may be regarded as a hallucination of the muscular sense. Ross quotes De Quincy with regard to this peculiar prolongation of the sense of time and space. In the melancholic stage the patient often suffers from remorse for some past act, often foolish, is timid and filled with thoughts prompting him to commit evil actions. These thoughts often take an erotic turn while at other times they assume the form of suicidal impulses. For the third or maniacal stage Ross refers to Bevan Lewis's text-book. In this stage there are visual hallucinations, vivid and incorrigible, burglars, detectives, men in collusion with their wives, etc. Aural hallucinations now assume the form of distinct voices uttering blasphemous oaths and curses, or are voices of ill-disposed persons intriguing against the patient, or they become commands from heaven or threats from the spirits of darkness. The delusions connected with the lightning like pains and other sensory disorders which the patient suffers are endless.

The last stage of alcoholic insanity is alcoholic dementia.

Ross's description agrees with that of Korsakoff as regards patients stating that they have been out walking, etc., when they have not left their bed.

*Toxic Insanity Especially in Relation to Chronic Alcoholism.* S. A. GILL. Medical Times and Circular, May 21, 1890.

Gill defines toxic insanity as caused by the presence in the circulating blood of such poisons as alcohol, opium, chloral, uric acid, lead, and the like. Discusses only alcohol in its remote effect on the nervous system. Divides alcoholic insanity into acute and chronic. The former is mania à potu, melancholia à potu, and delirium tremens. Does not discuss these, but simply calls to mind whether the symptoms they present are